

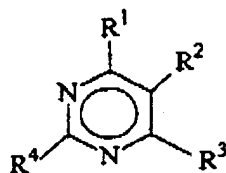
Docket No. H3294 PCT/US
Application Serial No. 09/869,171
PCT/EP99/09901

AMENDMENT TO THE CLAIMS

1-13. (Cancelled)

14. (Previously presented) A method of coloring keratin fibers comprising
(A) applying to keratin fibers a coloring composition formed from components comprising

(a) at least one pyrimidine derivative of formula I



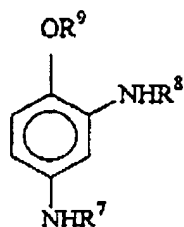
(I)

wherein R^1 , R^2 , R^3 and R^4 are, independently of one another, selected from hydrogen, an OH group, a NH_2 group, or a NR^5R^6 group, wherein R^5 and R^6 are independently selected from a C_1 to C_4 alkyl group, or a C_1 to C_4 hydroxyalkyl group having one or more hydroxyl groups that are primary, secondary or combinations thereof, or where two of the R^1 , R^2 , R^3 or R^4 substituents together form a 5 or 6 member, optionally substituted, heterocycle ring containing one or two nitrogen atoms, or one or two oxygen atoms or a combination of both in the heterocycle ring, with the proviso that at least two of the R^1 , R^2 , R^3 or R^4 substituents are a NH_2 group or NR^5R^6 group, and

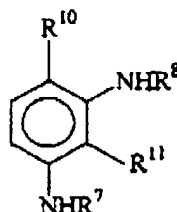
(b) at least one compound selected from

(i) m-phenylene derivatives of formula II or III

Docket No. H3294 PCT/US
 Application Serial No. 09/869,171
 PCT/EP99/09901

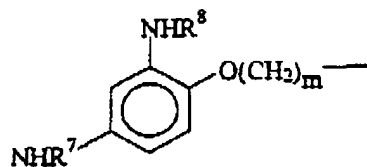


(II)



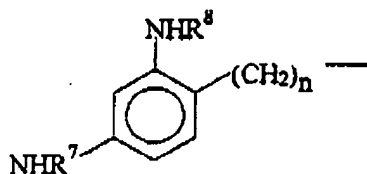
(III)

wherein R^7 , R^8 and R^{11} are independently from one another hydrogen, a C_1 to C_4 alkyl group or a C_1 to C_4 hydroxyalkyl group, R^9 is a C_1 to C_4 hydroxyalkyl group or a radical of formula IV



(IV)

in which R^7 and R^8 are defined as above and m is an integer from 1 to 4, and R^{10} is hydrogen or a radical of formula V

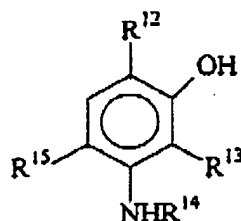


(V)

in which R^7 and R^8 are as defined above and n is an integer from 1 to 4,

Docket No. H3294 PCT/US
 Application Serial No. 09/869,171
 PCT/EP99/09901

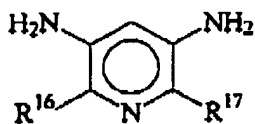
(ii) m-aminophenol derivatives of formula (VI)



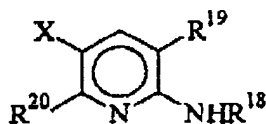
(VI)

wherein R^{12} is hydrogen or a C_1 to C_4 alkyl group, R^{13} is hydrogen, fluorine, chlorine, an OCH_3 group or a C_1 to C_4 alkyl group, R^{14} is hydrogen, a C_1 to C_4 alkyl group, a C_1 to C_4 hydroxyalkyl group or an OCF_3 group, R^{15} is hydrogen, fluorine, chlorine or an OCH_3 group, with the provisos that R^{12} , R^{13} , R^{14} and R^{15} are not hydrogen at the same time, and that, if R^{12} is methyl, R^{13} , R^{14} and R^{15} are not hydrogen at the same time,

(iii) pyridine derivatives of formula VII or VIII



(VII)



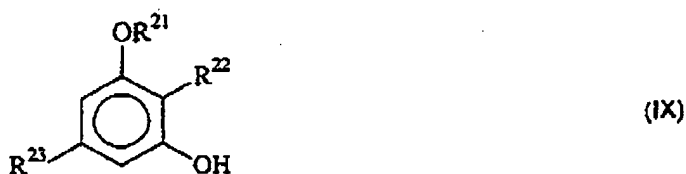
(VIII)

wherein R^{16} and R^{17} are independently fluorine, chlorine or an OCH_3 group, R^{18} is hydrogen, a C_1 to C_4 alkyl group or a C_1 to C_4 hydroxyalkyl group, R^{19} is an OH group or NH_2 group, R^{20} is hydrogen, a C_1 to C_4 alkoxy group or a NH_2 group, X is hydrogen or

Docket No. H3294 PCT/US
Application Serial No. 09/869,171
PCT/EP99/09901

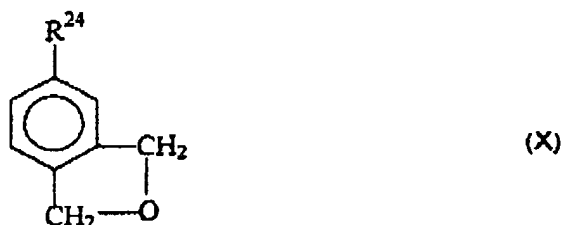
an OCH₃ group, with the provisos that, if R¹⁹ is NH₂, R¹⁸ and R²⁰ are not a C₁ to C₄ alkyl group and a methoxy group, respectively, at the same time, and if R¹⁸ is hydrogen, R¹⁹ and R²⁰ are not an OH group and hydrogen, respectively, at the same time,

(iv) resorcinol derivatives of formula IX



wherein R²¹, R²² and R²³ are independently from one another hydrogen, a C₁ to C₄ alkyl group or a C₁ to C₄ hydroxyalkyl group, with the provisos that R²¹, R²² and R²³ are not hydrogen at the same time, R²² is not methyl if R²¹ and R²³ are hydrogen, and R²² and R²³ are not hydrogen at the same time if R²¹ is methyl,

(v) methylenedioxybenzene derivatives of formula X



wherein R²⁴ is an OH group, a NH₂ group or a NHR²⁵ group, in which R²⁵ is a C₁ to C₄ alkyl group or a C₁ to C₄ hydroxyalkyl, or

(vi) 3,4-diaminobenzoic acid, or

(vii) combinations thereof; and

(B) oxidatively developing the coloring composition using atmospheric oxygen, an enzyme containing system, or combinations thereof as the sole oxidizing agent.

Docket No. H3294 PCT/US
Application Serial No. 09/869,171
PCT/EP99/09901

15. (Previously presented) The method of claim 14 wherein the pyrimidine derivative is 4-hydroxy-2,5,6-triaminopyrimidine, 2-hydroxy-2,5,6-triaminopyrimidine, 2,4,5,6-tetraaminopyrimidine, 5,6-diamino-2,4-dihydroxypyrimidine, 2,4-diamino-5,6-dihydroxypyrimidine, or 4-methylamino-2,5,6-tetraminopyrimidine, or combinations thereof.

16. (Previously presented) The method of claim 15 wherein the pyrimidine derivative is 2,4,5,6-tetraaminopyrimidine.

17. (Previously presented) The method of claim 15 wherein the pyrimidine derivative is present in the coloring composition in an amount of from 0.03 mmol to 65 mmol, based on 100 g of the coloring composition as a whole.

18. (Previously presented) The method of claim 14 wherein at least one of R^7 and R^8 of the Formula III is a C_1 to C_4 alkyl group or a C_1 to C_4 hydroxyalkyl group, and wherein R^{20} of the Formula VII is hydrogen or a C_1 to C_4 alkoxy group.

19. (Previously presented) The method of claim 14 wherein the component B comprises 1,3-bis(2,4-diaminophenoxy)propane, 1,3-bis(2,4-diaminophenyl)propane, 2,4-diaminophenoxyethanol, 2,6-bis(2'-hydroxyethylamino)toluene, 3-amino-2-chloro-6-methylphenol, 5-amino-4-chloro-2-methylphenol, 2,4-dichloro-3-aminophenol, 3,5-diamino-2,6-dimethoxypyridine, 5-methylresorcinol, 2,5-dimethylresorcinol, 3,4-methylenedioxyphenol, 3,4-methylenedioxyaniline, or N-(2-hydroxyethyl)-3,4-methylenedioxyaniline, or combinations thereof.

20. (Previously presented) The method of claim 19 wherein each compound of component B is present in the coloring composition in an amount of 0.03 mmol to 65 mmol, based on 100 g of the coloring composition as a whole.

Docket No. H3294 PCT/US
Application Serial No. 09/869,171
PCT/EP99/09901

21. (Previously presented) The method of claim 14 wherein the coloring composition further comprises at least one activated carbonyl compound selected from the group consisting of isatin, 5-chloroisatin, 5-bromoisatin, 6-bromoisatin, 5-nitroisatin, N-hydroxymethylisatin, N-allylisatin, 5-isatinsulfonic acid Na salt, glutaconaldehyde tetrabutylammonium salt, tribase aldehyde, malonaldehyde bis(dimethyl acetal), 4-hydroxy-3-methoxycinnanaldehyde, 1-piperidinomethylisatin, 1-diethylaminomethylisatin, glutaconaldehyde Na salt, 5-N-methylanilinopentadienyl, 2-chloro-3-hydroxymethylene-1-cyclohexene 1-aldehyde, N-(5-anilino-2,4-pentadien-1-ylidene)anilinium chloride, trans- β -(2-furyl)acrolein, 2-nitro-1,3-indanedione, dehydroascorbic acid, 2-acetyl-1,3-cyclohexanedione, 7-dimethylamino-2,4,6-heptatrienyldiene dimethylammonium perchlorate, 4-formyl-1-methylpyridinium benzenesulfonate, and combinations thereof.

22. (Previously presented) The method of claim 14 wherein the coloring composition further comprises one or more compounds selected from 5,6-dihydroxyindole or its N-substituted C₁ to C₄ alkyl or C₁ to C₄ hydroxyalkyl derivatives, or 5,6-dihydroxyindoline or its N-substituted C₁ to C₄ alkyl or C₁-C₄-hydroxyalkyl derivatives or combinations thereof.

23. (Previously presented) The method of claim 14 wherein the coloring composition further comprises one or more compounds selected from p-phenylenediamine, p-tolylenediamine, p-aminophenol, 4,4'-diaminodiphenylamine, 1,10-bis(2,5-diaminophenyl)-1,4,7,10-tetraoxydecane, 2,(2'-hydroxyethyl)-p-phenylenediamine, 2,6-dichloro-4-aminophenol, N,N-bis(2'-hydroxyethyl)-p-phenylenediamine, 3-methyl-4-aminophenol, 2-aminomethyl-4-aminophenol, 5-aminosalicylic acid, bis(2-hydroxy-5-aminophenyl)methane, or 2-(2,5-diaminophenoxy)ethanol, or combinations thereof.

24. (Previously presented) The method of claim 14 wherein the coloring composition further comprises anionic surfactants, zwitterionic surfactants, nonionic surfactants, or

Docket No. H3294 PCT/US
Application Serial No. 09/869,171
PCT/EP99/09901

combinations thereof.

25. (Previously presented) The method of claim 14 wherein the coloring composition is combined with an enzyme containing system before the application of the coloring composition to the keratin fibers.

26-30. (Cancelled)